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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,184	06/26/2003	David L. Patton	83891AF-P	6177

7590

12/30/2005

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EXAMINER

LE, BRIAN Q

ART UNIT

PAPER NUMBER

2621

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/607,184

Applicant(s)

PATTON ET AL.

Examiner

Brian Q. Le

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

PROSECUTION REOPENED

1. In view of the Appeal Brief filed on 12/01/2005, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:



JOSEPH MANCUSO
SUPERVISORY PATENT EXAMINER

Response to Arguments

2. Applicant's arguments, see Appeal Brief, filed 12/01/2005, with respect to the rejection(s) of claim(s) 1-8 under 35 U.S.C 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Froehlich et al. "A Near-field Scanning Optical Microscope for Analysis of Magneto-Optic Media", I.E.E.E. Optical Memory and Optical Data Storage, 1993, pages: 83-84.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 2, 5 and 7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Regarding claim 2, the Applicant must provide **two separate enablement (two separate supports)** in the original disclosure for a method wherein said micro-discrete indicia is located initially located using an eye-drop **and** a microscope and for another method wherein said micro-discrete indicia is located initially located using an eye-loop **or** a microscope. Similarly, the same rejections are made for claims 5 and 7 because of its **and/or** limitation.

Claims are not specifically addressed depend from indefinite antecedent claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kaplan U.S. Patent No. 6,211,484 and further in view of Froehlich et al. "A Near-field Scanning Optical Microscope for Analysis of Magneto-Optic Media", I.E.E.E. Optical Memory and Optical Data Storage, 1993, pages: 83-84.

Regarding claim 1, Kaplan teaches a method for reading a micro-discrete indicia (comparison between reading indicia and retrieved metric at micron scale) (column 8, lines 50-55 and column 16, lines 45-50) on gemstone (column 1, lines 13-15) comprising the locating said micro-discrete indicia on said gemstone (measuring gemstone's characteristics and locating indicia by coordinate) (column 8, lines 50-65 and column 4, lines 45-50). Further, Kaplan also uses a microscope in the reading of the indicia on the gemstone (column 12, lines 20-26). However, Kaplan does not explicitly teach the reading of micro-discrete indicia using near-field optics. Froehlich teaches the utilization of near-field optic of the microscopy (provides the capability of reading micro-discrete indicia) (page 83, first paragraph). Modifying Kaplan's method of providing micro-discrete indicia on gemstone would be able to provide the reading ability (scanning/measurements) of micro-discrete indicia using near-field optics to exceed the far-field diffraction limit compared to the use of an objective lens in conventional optical microscopy (page 83, first paragraph). Using this suggestion, one of ordinary skill in the art,

Art Unit: 2623

would have been motivated to replace the microscope of Kaplan with the device of Froehlich.

This would improve processing and therefore, it would have been obvious to one of the ordinary skills in the art to modify Kaplan according to Froehlich.

Regarding claim 2, Kaplan teaches a method wherein said micro-discrete indicia is located (as discussed) initially located using an eye-loop (jeweler's loupe) (column 8, lines 30-35) and/or microscope (FIG. 6, element 68).

For claim 3, Kaplan further teaches a method wherein said micro-discrete indicia is located by using predetermined coordinates (initially positioned) associated with the characteristics of said gemstone (column 4, lines 48-60) (column 1, lines 13-16).

Referring to claim 4, Kaplan also teaches a method where a document (column 8, lines 14-18 and column 4, lines 13-21) is provided that designates the appropriate coordinates of the micro-discrete indicia of said gemstone (column 4, lines 48-60).

Regarding claim 5, Kaplan teaches a method wherein said characteristics of said gemstone used to locate said indicia is selected from of the following size (column 13, lines 31-37).

For claim 6, Kaplan discloses a method wherein said micro-discrete indicia is used for authenticating an occasion of said gemstone (column 13, lines 34-47).

Referring to claim 7, Kaplan teaches a method wherein said authentication identifies the quality and/or type of gemstone (face value) (column 6, lines 60-64).

For claim 8, Kaplan further teaches the scanning said gemstone (microscope scans gemstone) (FIG. 6, element 68).

CONCLUSION

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to the utilization of near-field optical in microscopy reading (micro-discrete indicia):

Tom D. Milster et al., 'Near Field', Optics and Photonics News, December 2001.

Kusato, Hirota et al., "Design of a Near-Field Probe for Optical Recording Using a 3-Dimensional Finite Difference Time Domain Method", February 2000, Vol. 39, pages: 973-975.

Tom D. Milster et al., "Characteristics of gap-induced aberration in solid immersion lens system", I.E.E.E. Optical Data Storage, May 2000, pages: 39-41.

Kusato, Hirota et al., "Near-Field Phase Change Optical Recording Using a GaP Hemispherical Lense", August 1999, Vol. 39, pages: 968-972.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Q. Le whose telephone number is 571-272-7424. The examiner can normally be reached on 8:30 A.M - 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on 571-272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BL
December 21, 2005



JOSEPH MANCUSO
SUPERVISORY PATENT EXAMINER